

Answer

Examiner of the Patent Office: Mr. Tetsuya FURUKAWA, Esq.

1. Designation of the International Patent Application:

5 PCT/JP03/12548

2. Applicant

Name: HITACHI, LTD.

Address: 6, Kanda Surugadai 4-chome, Chiyoda-ku,
TOKYO 101-8010, JAPAN

10 Nationality: Japan

Address: Japan

3. Agent

Name: Katsuo OGAWA, Patent Attorney (Reg. No. 6850)

Address: Nitto International Patent Office

15 8th Floor, No. 17 ARAI Building,
3-3, Shinkawa 1-chome, Chuo-ku,
TOKYO 103-0025 JAPAN

4. Date of Notice: January 20, 2004

5. Content of Answer

(1) According to the PCT examination report dated January 20, 2004, it was decided that claims 1-5 and 8 of the present invention have no inventive step from the invention described in any of cited documents 1 through 4, because of reasons that the descriptions of claims 1-5 and 8 in the present application do not specify the definitions of a display device and a user terminal clearly in technical, and particularly, a TCD described in the cited document 1 and a child TV set described in the cited document 2 are recognized to be understandable as either the display device or user terminal.

(2) Then, the applicant has amended claims 1-5 of the present application through a written amendment submitted on the same date in order to define the display device and the user terminal.

By this amendment, a display device of the present invention is defined as one that has a function of bidirectional communication with a server for distributing image or another display device, a function of bidirectional communication with a user terminal, and a function of displaying distributed images received from upstream side on the image distribution path on its display unit, forwarding the received images to another display device located downstream side on the distribution path, if necessary, and distributing the received images to a user terminal in response to a request from the user.

(3) Cited document 1 (Publication No. JP2000-41198) proposes.

a television system comprising a TV receiver and a television companion device (TCD) connected to the TV receiver by a wireless communication link, wherein streaming for general audience is provided to the TV receiver and streaming selected for personal audience is transmitted from the TV receiver to the TCD to present on the TCD screen.

It is apparent that the cited document 1 discloses only distributing images between the TV receiver (which corresponds to the display device in the present invention) and the TCD (which corresponds to the user terminal in the present invention), but fails to disclose a video display system comprising a plurality of display devices, in which received data is forwarded to downstream display devices on the image distribution path like the present invention.

(4) Cited document 2 (Publication No. JP11-196345) relates to parent and child TV sets and proposes to distribute text or image information on a child TV set in cooperation with the display contents on the parent TV set in real time while the parent TV set is displaying video content received by an antenna or from a communication network. As is the case for the cited document 1, the cited document 2 discloses only distributing images between the TV receiver (which corresponds to the display device in the present invention) and the TCD (which corresponds to the user terminal in the present invention), but fails to disclose a video display system comprising a plurality of display

devices, in which received data is forwarded to downstream display devices on the image distribution path like the present invention.

(5) Cited document 3 (Publication No. JP2001-346199) proposes a video display system comprising a plurality of large display devices each including a user terminal (PDA), an antenna for communication, and a camera, and a center server (central control device) connected to these video display devices by lines.

Images captured by the camera at a site where each large video display device is installed are output to monitor screens of the center server. An operator who resides in the center performs switching control of video to be distributed to the large video display devices and additional data so that effective rendering as the whole system can be performed. Although this system is similar to the present invention in that the system comprises a plurality of video image devices that can communicate with the user terminal, each of the video display devices is connected, in the case of the cited document 3, to the center server through an individual line and receives images that are directly distributed from the center server. Thus, evidently, this cited document 3 also fails to disclose a video display system comprising a plurality of display devices with a function to forward received data to downstream display devices on the image distribution path like the present invention.

(6) Cited document 4 (Publication No. JP2003-18576) proposes

a television system in which a plurality of TV receivers are set up so that they can communicate with information relay apparatus (a base station), enabling a program being watched on a TV set (e.g., a small TV set) to be enjoyed on another TV set (e.g., a large TV set). By sending information indicating the channel being received now to another TV set via the base station, the user can immediately watch the program that the user want to enjoy without channel selection. In this case, images displayed on each display device (TV receiver) are broadcast video received by the antenna of the device and they are not the images that are transferred between display devices. Therefore, evidently, this cited document 4 also fails to disclose a video display system comprising a plurality of display devices with a function to forward received data to downstream display devices on the image distribution path like the present invention.

(7) From the above reasons, the applicant believes that it is very difficult for those skilled in the art to conceive the configuration of claims 1 through 5 of the present application by referring to the cited documents 1 to 4.

According to the configuration of the present invention, by using the function to communicate images between display devices, images can be distributed to a remote display device that is impossible to directly communicate with the server for distributing images. Therefore, particularly, in a video

display system for distributing images via wireless interfaces, the present invention has such an advantage that the coverage of the video distribution service can be extended to a point beyond the coverage of radio waves from the server.

5 In the examination report, it was decided that the requirement of unity of invention is not fulfilled, because, as for claims 1 through 14 of the present application, a common matter to be considered as a special technical feature is not found aside from the video display device that can communicate
10 with another device. However, all claims after amendment include, as common features, the above function to communicate images between display devices and the function to communicate images with user terminals. Therefore, the applicant believes that the written amendment submitted now can eliminate the
15 problem of lack of unity of invention in the claims.